Summary

The invention concerns position sensors, in particular their detector unit. The role of the existing invention is to simplify a position sensor of this construction principal so that function is guaranteed with sufficient accuracy, despite clearly lower production costs. It was determined that when using an electrically conductive waveguide, which simultaneously serves as an electrical conductor, with coaxial configuration of the detector coil directly on the electrical conductor and configuration of a corresponding shielding around the detector coil, in particular in the form of a flux-guide component, the information signal sufficiently differentiates itself from the existing interfering signal, in particular if the shielding surrounds the detector coil as tightly as possible. The position sensor according to the transit time principle of a mechanical-elastic wave shows a waveguide (3), a detector coil (5) arranged on the waveguide (3) as well as a position element, for example a position magnet (28) that is movable along the waveguide (3), thereby provokes that the waveguide (3) consists of a electrically conductive material and the detector coil (5) is arranged in the detector range coaxially to the waveguide (3).

(Fig. 1a)